

YADSTI

YOUTH AGENCY FOR DEVELOPMENT OF SCIENCE, TECHNOLOGY & INNOVATION

THE 5TH ANNUAL SCIENCE CONFERENCE AND EXHIBITIONS



Date: 8th May, 2009.

Venue: International Livestock Research Institute. (ILRI)

Theme: "Enhancing food security and health using modern technology for sustainable development in Africa."



CONFERENCE REPORT



INTRODUCTION TO YADSTI

The Youth Agency for the Development of Science, Technology and Innovation (YADSTI) is an initiative of young Kenyan scientists with an objective of promoting science and technology as a tool for development as well as creating the necessary link among the stakeholders of science through education and dissemination of scientific information especially to the underprivileged in the society. The *vision* of YADSTI is “**CULTIVATING A SCIENCE CULTURE**” while its core values are **professionalism, integrity, punctuality** and **teamwork**.

YADSTI organized their 5th annual conference which was the main event in its calendar of 2009. The conference theme was “**Enhancing food security and health using modern technology for sustainable development in Africa.**” It was attended by over 350 students, lecturers, researchers and professionals.

The Chief Guest was **Dr. Romano Kiome, Permanent Secretary in the Ministry of Agriculture.**

CONFERENCE OVERVIEW

Exhibitors

All the conference participants had a moment to view exhibitions and make enquiries. The exhibitors included:

1. Kenya Agricultural research Institute (KARI).
2. International Livestock Research Institute (ILRI).
3. Pan African Chemistry Network (PACN).

Conference Highlights

The conference took off at 9:00 am with Dr. Julius Mwambora, a representative of the Principal, College of Physical and Biological Science, University of Nairobi, giving the welcoming note.

Dr. Romano Kiome, Permanent Secretary Ministry of Agriculture.

Keynote:

Dr. Romano Kiome, Permanent Secretary Ministry of Agriculture officially opened the conference. In His speech he identified a big gap between the young and the old that has led to poor development. He noted that from the current statistics, 6 million children die because of hunger related illnesses and 4 million others are mentally retarded, malnutrition being the major cause. He reiterated that it should not be a scientist's only affair but everyone must contribute to solve the problems. He explained that the government is wholly committed in integrating young people in development through research. He committed to create a link between his ministry and YADSTI and precisely push for allocation of at least 10% of the Kenya agricultural research funds to the youth at research level.

Dr.Rebecca Nelson, Cornell University, Visiting Scientist, BecA Hub, ILRI, KENYA.

Investing in Food Security in East Africa.

She opened her address by mentioning that food security in East Africa is an issue that needs to be given key priority by all stakeholders so as to alleviate the current global food crisis. She quoted the recent statistics by Food Agricultural Organization (FAO) which indicate that about 70% of Kenya's population is faced with food shortage. This report further hinted that 80% of the populations depend on agriculture for their livelihood. As a matter of concern, she identified keen investment in agriculture and the right control measures by all stakeholders as the key to improving food security in East Africa.

Professor Ratemo Michieka, CVAS, University of Nairobi.

Topic: Environmental Issues in Kenya.

He addressed the conference on the main ways that the environment can be conserved so as to maintain the balance of nature. In particular, he emphasized on the need to train the ordinary citizens about ways of doing agro forestry in their farms and the use of biological means of environmental conservation such as planting weeds that vegetate on harmful plants like water hyacinth in Lake Victoria. In addition, he underscored the fact that Kenya and many other countries face the threat of desertification due to continued climate change and deforestation as well as destruction of water catchment areas.

Dr. Charity Gichuki (BVM, PhD) Director, Centre for Research.

Topic: Technology and Agriculture, Caring for future needs.

She noted that the knowledge required to create wealth is not lacking but the will to turn the knowledge into practical innovations, especially in Sub-Saharan Africa. She said that the loss of biodiversity and ecosystems is a threat to the functioning of our planet, our economy and society. "Biodiversity is not just a green issue – it is life support, providing food, fuel, fiber, medicines, pollination, soil fertility and water." Mankind is said to be causing almost £40bn-worth of damage to land ecosystems each year, which is directly responsible for crises such as rocketing food prices.

Wilson Tonkei

Topic: Combating HIV/AIDS, malaria and tuberculosis: The role of under nutrition both as symptoms and cause

He said that the major cause of the spread of these diseases was due to poverty and that combating them would require more focus on poverty eradication. Some of the ways of eradicating poverty include; empowerment of women economically and provision of cheaper health care, maternal health he said was also one of the other highlighted methods of combating the spread of disease. Some of the efforts to curb spread of disease were welcomed and the other methods suggested were the use of technology in youth awareness on sustainable livelihood skills, sexual and reproductive health.

Dr. Jagger Harvey (PhD), Crop Research Scientist, BecA-ILRI, Nairobi, Kenya

Topic: Mobilizing biosciences for African development

He noted that national programs are already conducting a lot of agricultural improvement. BecA-ILRI Hub (*Biosciences eastern & central Africa Hub*), he said, is a shared research and training platform for the region and that ILRI has opened its campus for use by scientists in eastern and central Africa. He explained that Biotechnology has been used to enhance agricultural improvement by breeders and is only a complementary part of agricultural improvement efforts. Other areas where Biotechnology has been used include: Bioinformatics, Diagnostics (nucleotide- and protein-based), DNA sequencing, Genetic engineering etc.

Didi Ananda Ruchira, Executive Director Abha Light Foundation.

TOPIC: Alternative medicine for sustainable development

She spoke on homeopathic malaria prophylaxis & treatment. Malaria causes 853,000 deaths in children under 5 years according to a World Health Report in 2005. The cost of treatment of those suffering from malaria has been greatly reduced by use of natural products that treat

suppressed and recurrent malaria. Alternative medicine has thus been positively absorbed as been one of the methods that allow for sustainable development.

Mrs Ruth Odhiambo, Pan African Chemistry Network.

She spoke on the network that was launched in 21st November 2007 in London and on 27th May, 2008 at the University of Nairobi with the objective of creating new avenues for researchers to collaborate across Africa, coordinating and organizing conferences, workshops & seminars and strengthening the existing Networks across Africa. She highlighted the achievements of the network to date and concluded by inviting the members of the audience to some of their upcoming conferences.

Dr. Faith Nguti, ISAA Africenter.

Benefits and risks associated with GMOs, Which way forward?

She mentioned that there has been rising concern over the use of Genetically Modified Organisms and enlightened the audience on their major benefits versus the risks associated with them. Some of the benefits she identified include high yields, low production period, crops resistance to diseases and pests and high nutrient content. She mentioned such risks as possibility of mutations of the GMOs' genes with the body cells. In conclusion, she recommended the adoption of GMOs as a way forward given the acute food shortages being experienced in Kenya and the world over.

Dr. Ambrose Agweyu, Clinical Researcher, KEMRI.

Basic and Clinical Medical Research.

Dr. Agweyu addressed the conference on the differences between basic and clinical medicines and how the two share some similarities. He indicated that basic medicine cannot be used alone neither can clinical medicine, therefore there is need to pick those areas of each of these approaches and integrate them in order to come up with viable medicine. He explained the process of clinical medical research which is lengthy and costly but ensures quality and safe medicines compared to basic medical research.

Conclusion

The conference was a success since it met its objective of disseminating information thus leaving the attendees empowered with the knowledge to make a difference in our society. We look forward to organizing other conferences.

Acknowledgements

YADSTI acknowledged the following sponsors without whom the conference would not have been a success.

- PAN AFRICAN CHEMISTRY NETWORK (PACN).
- INTERNATIONAL LIVESTOCK RESEARCH INSTITUTE (ILRI).
- COLLEGE OF BIOLOGICAL AND PHYSICAL SCIENCES, UNIVERSITY OF NAIROBI.
- KENYA AGRICULTURAL RESEARCH INSTITUTE (KARI).
- MINISTRY OF AGRICULTURE.
- KENYA MEDICAL RESEARCH INSTITUTE (KEMRI).

THE CONFERENCE PROGRAM.

PROGRAM FOR THE 5TH ANNUAL CONFERENCE AND EXHIBITIONS HELD ON 8TH MAY 2009 AT THE INTERNATIONAL LIVESTOCK RESEARCH INSTITUTE (ILRI)

TIME	TOPIC	SPEAKER
08:30-09:00 am	Arrival and registration	
09:01-09:15 am	Welcome note	Principal, CBPS
09:16-10:00 am	Keynote Address by Chief guest	Dr. Romano Kiome, PS Ministry of Agriculture.
10:01-10:45 am	Investing in Food Security in East Africa.	Rebecca Nelson, Cornell University
10:46-11:30 am	Environmental Issues in Kenya.	Prof. Ratemo Michieka, University of Nairobi, CAVS.
11:31-12:15 pm	Benefits and risks associated with GMOs, which way forward.	Margaret Karembu (PhD), Director ISAAA Africenter.
12:16-01:00 pm	Combating Malaria, TB and HIV/AIDS,	Mr. Wilson Tonkei, Optimization Department, Bamburi.
01:01-01:10 pm	Presentation	Ruth Odhiambo, Pan African Chemistry Network.
01:11-02:00 pm	LUNCH BREAK	
02:01-02:45 pm	Equipping the modern lab, Costs vs. benefits.	Jagger Harvey(PhD), Plant Scientist, BECA – Hub .
02:46-03:30 pm	Technology and Agriculture: Caring for future needs.	Dr. Charity Gichuki PhD, Director, K.U. Research Center.
03:31-04:15 pm	Alternative medicine for sustainable development.	Didi Ananda Ruchira, Executive Director, Abha Light Foundation.
04:16-05:00 pm	Basic and Clinical Medical research.	Dr. Ambrose Agweyu, KEMRI.

Ten O'clock Lunch and Four O'clock tea shall be served as the conference continues. 45 Minutes duration per speaker includes Q & A.